

# Finding Solutions of Quadratics - Mixed Practice

A. State which method you are using (Graphing, Quadratic Formula, Factoring and Z.P.P. or taking square root)

B. Find the solutions. SHOW YOUR WORK!

1.  $x^2 - 16x + 64 = 0$

2.  $x^2 = 3x$

3.  $9x^2 - 24x + 16 = 0$

4.  $x^2 - 3x = 40$

5.  $3x^2 + 9x - 2 = 0$

6.  $2x^2 + 7x = 0$

7.  $5x^2 - 2x + 4 = 0$

8.  $12x^2 - x - 6 = 0$

9.  $7x^2 + 6x + 2 = 0$

10.  $12x^2 + 2x - 4 = 0$

11.  $6x^2 - 2x - 1 = 0$

12.  $x^2 + 3x + 6 = 0$

13.  $4x^2 - 3x - 6 = 0$

14.  $16x^2 - 8x + 1 = 0$

15.  $2x^2 - 5x - 6 = 0$

16.  $7x^2 - 5x = 0$

17.  $4x^2 - 9 = 0$

18.  $3x^2 + 8x = 3$

19.  $x^2 - 21 = 4x$

20.  $3x^2 - 13x + 4 = 0$

21.  $15x^2 + 22x = -8$

22.  $x^2 - 6x + 3 = 0$

23.  $x^2 - 14x + 53 = 0$

24.  $3x^2 = -54$

25.  $25x^2 - 20x - 6 = 0$

26.  $4x^2 - 4x + 17 = 0$

27.  $8x - 1 = 4x^2$

28.  $x^2 = 4x - 15$



29.  $4x^2 - 12x + 7 = 0$

30. **GRAVITATION** The height  $h(t)$  in feet of an object  $t$  seconds after it is propelled straight up from the ground with an initial velocity of 60 feet per second is modeled by the equation  $h(t) = -16t^2 + 60t$ . At what times will the object be at a height of 56 feet?

31. **STOPPING DISTANCE** The formula  $d = 0.05s^2 + 1.1s$  estimates the minimum stopping distance  $d$  in feet for a car traveling  $s$  miles per hour. If a car stops in 200 feet, what is the fastest it could have been traveling when the driver applied the brakes?

# DID YOU HEAR...

1.	2.	3.	4.	5.	6.	7.
8.	9.	10.	11.	12.	13.	14. ?

 Solve the equation. ~~Show work!~~ Write the word next to the answer in the box that contains the exercise number. 

1.  $a^2 - 8a = -15$

2.  $y^2 + 6y = 7$

3.  $k^2 - 10 = 9k$

4.  $w^2 = 13w$

5.  $11x = -x^2 - 24$

6.  $d^2 = 50 - 23d$

7.  $3p^2 - 14p = 5$

8.  $2m^2 + 14 = 11m$

9.  $8 - 3t = 5t^2$

10.  $16h^2 = 25$

11.  $25b + 11 = -6b^2$

12.  $36u = 9u^2$

13.  $12q^2 = 17q + 5$

14.  $9 = 12x - 4x^2$

$\{-5, -2\}$  CIRCUS

$\{0, 13\}$  OF

$\{\pm \frac{5}{4}\}$  SCARED

$\{2, \frac{7}{2}\}$  WHO

$\{3, 5\}$  THE

$\{-\frac{1}{4}, \frac{5}{3}\}$  DEATH

$\{-\frac{11}{2}, \frac{1}{3}\}$  BY

$\{-8, -3\}$  THE

$\{\frac{3}{2}\}$  TWICE

$\{-1, 10\}$  STORY

$\{4, 5\}$  JUMPED

$\{-\frac{8}{5}, 1\}$  WAS

$\{\frac{1}{3}, \frac{5}{4}\}$  HER

$\{-\frac{1}{3}, 5\}$  LADY

$\{0, 4\}$  TO

$\{1, -7\}$  SAD

$\{-12, 2\}$  CRAZY

$\{-\frac{11}{3}, -\frac{1}{2}\}$  HALF

$\{1, \frac{5}{3}\}$  CLOWN

$\{-25, 2\}$  UNFORTUNATE